

REMARKS

Applicant has carefully reviewed the office action of notification date July 16, 2008. The present response is meant to be responsive to all points of the office action. Favorable reconsideration and allowance is hereby solicited.

Applicant herein amends claims 1, 19, 24, 27, 43, 45, 47, 48 and 50. Claims 7, 8, 18, 21, 26, 28, 32, 33, 34 and 44 have been cancelled without prejudice, and new claims 51 – 59 have been presented. Specifically new independent claim 51 reflects the contents of former claim 24; new independent claim 54 reflects former claim 27 with the limitations of claim 18; new independent claim 56 reflects former claim 43 without the comparing step and with the limitation of claim 45, equivalent to the limitation of claim 24; and new independent claim 58 reflects former claim 43 without the comparing step and with the limitation of claim 45, equivalent to the limitation of claim 1. Support for the amendments is found in the originally filed specification and claims. No new matter is added by these amendments. Claims 1 – 6, 9 – 17, 19 – 20, 22 – 25, 27, 29 – 31, 35 – 43, and 45 – 59 remain in the case.

CLAIM REJECTIONS – 35 USC §03

Applicant notes the obligation under 37 CFR 1.56 and advises that all claims were commonly owned.

Claims 1 – 6, 9 – 16, 18 – 37, 39, 43 and 46 – 50, stand rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA), Yoneda (U.S. Patent Application Publication 2003/0218384) and Kawabata et al (U.S. 4,677,535).

Yoneda receives power from a single input power source (3), and power is supplied to load (4) derived from the single input power source (3), from one or more of DC/DC converter #1, #2 (1,2) (Fig. 1, 4). In one embodiment, the DC/DC converter operation control circuit 19 operates responsive to CPU 13 via operation mode determining line 14 output by CPU 13. Responsive to the operation mode signal, DC/DC converter operation control circuit 12 alternately stops and stops the operation of DC/DC converter 2. (Paragraph 0034, 0035). In a second embodiment, the DC/DC converter operation control circuit 17 operates responsive to CPU 13 via operation mode determining line 14 output by CPU 13. Responsive to the operation mode signal, DC/DC converter operation control circuit 17

alternately stops and stops the operation of DC/DC converter 2, and alternately switches DC/DC converter 1 from continuous to intermittent mode. (Paragraph 0056, 0057). In a third embodiment, the DC/DC converter operation control circuit 19 operates responsive to CPU 13 via operation mode determining line 14 output by CPU 13. Responsive to the operation mode signal, DC/DC converter operation control circuit 17 alternately operates each of DC/DC converter 1 and DC/DC converter 2, in one of the continuous and intermittent mode. (Paragraph 0066, 0067).

Thus, Yoneda operates the various DC/DC converters responsive to demands of the load. Furthermore, Yoneda exhibits only a single source of power for both DC/DC converter 1 and DC/DC converter 2.

Kawabata teaches a conversion system including a plurality of converter units connected to supply A.C. outputs to a load through a common bus. (Abstract) Admitted Prior Art teaches powering over communication cabling from a single power source.

Claim 1 as amended positively recites that the combiner is operative to transmit a signal to at least one of said first power source and said second power source, the signal indicating that said combiner is operative to produce said high power output. The first power source and the second power source are each arranged to supply power over a different set of wire pairs of communication cabling. Neither Kawabata nor Yoneda are operative to transmit a signal to the power sources indicative of successful combining. Yoneda commands the power sources to operate, however there is no indication given to input power source 3 as to whether a single DC/DC converter is operative or whether a pair of DC/DC converters are operative and combined. Furthermore, Yoneda does not exhibit a pair of remote sources, only a single input power source is taught, and the input power source is not connected over communication cabling.

A combination of APA and Yoneda would teach connecting input power source 3 to the pair of DC/DC converters 1, 2 via communication cabling. It would not teach a pair of power sources supplying power over communication cabling, and furthermore would not teach transmitting a signal to at least one of the power sources indicating that the combiner is operative to produce a high power output.

Claim 1 is thus deemed patentable over the combination of APA, Yoneda and Kawabata. Claims 2 – 6, 9 – 17, 19 – 20, 22 – 25 and 48 – 49 are deemed patentable at least for depending on patentable claim 1.

Claim 25 is further deemed patentable, as the prior art of record does not teach, or suggest, that the load is operative in one of a low power mode and high power mode, with the mode selection responsive to a mode signal from the combiner. Yoneda teaches that the load controls the combiner so as to provide the required power, not that the combiner controls the load to be operative in a mode responsive to the available power.

Claims 51 and 56 are each deemed patentable, as the prior art of record does not teach, or suggest, that the load is operative in one of a low power mode and high power mode, with the mode selection responsive to a mode signal from the combiner. Yoneda teaches that the load controls the combiner so as to provide the required power, not that the combiner controls the load to be operative in a mode responsive to the available power. Claims 52, 53 and 57 are deemed patentable at least for depending respectively on patentable claims 51 and 56. Furthermore, each of the dependent claims recite particular novel features, described above in relation to Claim 1.

Claim 27 as amended positively recites that the control circuit of the combiner is operative in the absence of the combined high power signal to supply a low power signal and a mode signal to the powered device. The powered device is operative in one of a low power mode and a high power mode responsive to the mode signal. Claim 27 as amended is thus deemed patentable as the prior art of record does not teach, or suggest, that the load is operative in one of a low power mode and high power mode, with the mode selection responsive to a mode signal from the combiner. Yoneda teaches that the load controls the combiner so as to provide the required power, not that the combiner controls the load to be operative in a mode responsive to the available power.

Claim 27 is thus deemed patentable over the combination of APA, Yoneda and Kawabata. Claims 29 – 31, and 35 – 42 and 50 are deemed patentable at least for depending on patentable claim 27.

Newly presented independent claims 54 and 58 are each deemed patentable, as the prior art does not teach or suggest the operation of transmitting a signal to at least one of said

first power source and said second power source, the signal indicating that said combiner is operative to produce said high power output. The first power source and the second power source are each arranged to supply power over a different set of wire pairs of communication cabling.

Dependent claims 55 and 59 are each deemed patentable at least for depending respectively on patentable claims 54 and 58. Claims 55 and 50 are each further deemed patentable for reciting the novel feature described above in relation to claim 25.

Claim 43 has been amended to recite the limitations of patentable claim 44, and claim 44 has been cancelled. Claims 46 – 47 are deemed patentable at least for depending on patentable claim 43. Claim 46 is further deemed patentable for reciting the novel features described above in relation to claim 1.

CONCLUSION

In view of the foregoing, allowance of all pending claims (i.e., Claims 1 – 6, 9 – 17, 19 – 20, 22 – 25, 27, 29 – 31, 35 – 43, and 45 – 59) is respectfully requested.

The Examiner is encouraged to contact Applicant's undersigned agent by telephone if it would in any way aid in the advancement of this application to issue.

Respectfully submitted,

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